

LISTINGS NEWSLETTER

Newsletter of the
Long Island Sinclair/Timex
Users Group
=====

Incorporating NYTSE

Issue

MARCH

1991

TS2068 TS2068 TS2068

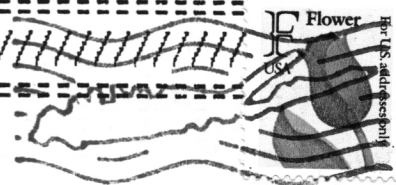


ALL THE NEWS THAT'S
FIT TO PRINT

TIMEX **sinclair**

QL QL QL QL

L.I.S.T.
5 PERI LANE
VALLEY STREAM, NY
11581



TO:

Don Lambert JAN/92
1301 Kibinger PL
Auburn, IN
46706-3010

1

FIRST CLASS MAIL
DATED MEETING NOTICE

LIST LIST L.I. NY LIST LIST

APRIL 14

UPPER RIGHT
CORNER OF
YOUR LABEL
IS DATE OF
LAST ISSUE.

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+++++
LIST OFFICERS
+++++
PRES. HARVEY RAIT
TRES. ROBERT MALLOY
COR. SEC. JOHN PAZMINO
EDITOR. FRED STERN
LIBR. TOM SKAPINSKI
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LIST
MR. HARVEY RAIT
5 PERI LANE
VALLEY STREAM, N.Y. 11581

MR. FREDERIC STERN
214 ROBERTS ST.
HOLBROOK, N.Y. 11741

NYTSE MEETS THE MONDAY AFTER
THE LIST MEETING AT:
MISS KIMS RESTAURANT
PARK AVENUE SOUTH
BETWEEN 21 ST. AND 22 ST.
MEETINGS START 7:30 PM.

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DDP. 14, 10001 LIST MEETING
DDP. 10, 10001 NYTSP MEETING

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MAR. 10, 1991

HARVEY CALLED THE MEETING TO
ORDER AT 2:30PM.

HARVEY CALLED TO FIRST ORDER THE
ANNOUNCED RESIGNATION OF FRED
STERN AS LISTING EDITOR.
FRED WILL HOLD ON UNTIL JUNE
AFTER WHICH A NEW EDITOR WILL BE
NEEDED FOR LISTING.
ANY LIST MEMBER WHO IS INTEREST-
ED IN TAKING OVER THIS IMPORTANT
POSITION, PLEASE CALL FRED
AT 516-737-0863.

BOB MALLOY REPORTED THAT THE CLUB FINANCES ARE IN GOOD SHAPE.

FRED STERN REPORTED THAT
TECHNICAL TIDBITS PART II WILL
BE AVAILABLE FOR SALE BY THE
APRIL MEETING.

HARVEY ADVISED THAT THE GROUP IS BUYING A QL SET-UP FOR FUTURE SALE.

IN JUNE WE WILL HAVE A MEETING/
SWAPMEET. ALL SELLERS ARE
REQUESTED TO SEND A LIST OF
ITEMS WITH PRICES. PLEASE PUBLICATION
YOUR LIST BY THE APRIL MEETING.

[illegible]

NAZIR HAS BEEN ELECTED PRESIDENT
OF THE CHICAGO USERS GROUP.

THE PRICES ARE:
\$5.00 BY MAIL
\$4.00 AT THE MEETINGS

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PAGE 3. LISTS THE PROGRAMS IN
BOOK CHILDERS OL LIBRARY.
THESE PROGRAMS ARE AVAILABLE ON
5.25 DISK, 3.50 DISK, OR MICRO-
DRIVE CASSETTE.
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THE 5.25 DISK IS PRICED AT
\$6.00 AT MEETINGS, AND \$7.00 BY
MAIL.

FOR INFORMATION REGARDING 3.50
DISK AND MICRODRIVE CASSETTES,
SEND A 3.A.3.5 TO:
MR. BOB GILDER
69 JEFFERSON PLACE
MASSAPEQUA, N.Y. 11758

BOB WILL HOLD A (PRINTER WORK-
SHOP) AT THE NEXT MEETING.

THIS CLASSIFIED SECTION IS
AVAILABLE TO ALL LIST MEMBERS
FREE OF CHARGE.
THE ONLY RESTRICTION IS THAT
IT IS TO BE USED ONLY FOR THE
SEEKING, SELLING OR SWAPPING
OF SINCLAIR, TIMEX OR MICROACE
COMPUTER EQUIPMENT, PERIPHERALS
AND SOFTWARE.
LISTING, LIST, AND ITS OFFICERS
DO NOT ENDORSE, WARRANTY, OR
GUARANTEE ANY OF THE ITEMS
LISTED IN THIS CLASSIFIED
SECTION

[illegible]

IRISH FCC-10 BLANK TAPES AT AN
INCREDIBLY LOW PRICE. CALL TOM
516-732-1825.

MY NAME IS FRED STERN AND I AM
THE EDITOR OF THIS EDITION OF
LISTING.

A SPECIAL THANKS TO BOB GILDER,
JOHN RAZMINDO AND TOM SKAPINSKI
FOR THEIR EFFORTS IN MAKING THIS
ISSUE POSSIBLE.

SEE YOU ALL AT THE NEXT MEETING

THE SINCLAIR REPORTER

Disk #1 LISTlibry1 12/720 sectors

- | | | |
|------------------------|-------------------------|-----------------------|
| 1. CAPSlock_ind_boot | 2. GOMOKU | 3. CHECKERS |
| 4. RESISTOR_color_code | 5. CIRCUIT | 6. BLOBS |
| 7. TREE | 8. JOIN_the_DOTS | 9. Fox_and_Hounds |
| 10. TickTack_Toe | 11. BOX | 12. graphics |
| 13. caps_bin | 14. PLANT_life | 15. picture_puz |
| 16. Cone | 17. CAPSlock_ind | 18. taktix |
| 19. rader | 20. CURSET | 21. C1 |
| 22. giro | 23. Qlbingo_call | 24. PIP_bin |
| 25. JUPITER | 26. BOING | 27. CUBE |
| 28. Qlcalc | 29. SBcalc1 | 30. PIP |
| 31. PIP_boot | 32. PSION_Patch | 33. MEMres_boot |
| 34. MEMres_cde | 35. DIYmemAL | 36. Threed_Sketch_Pad |
| 37. DISKdir | 38. 128K_BOOT | 39. 128K |
| 40. TASK_FORCE | 41. METALexch | 42. memdispl |
| 43. GRAVITY | 44. Graphic2 | 45. Graphic3 |
| 46. Graphic1 | 47. Char_tmp | 48. QlcharSet |
| 49. MultiBas_boot | 50. MultiBas_hex_loader | 51. MultiBas_cde |
| 52. DIYhexldr | 53. Relat2_pro | 54. Relat1_pro |
| 55. Relation_pro | 56. DISASSEMB | 57. COLORBAR_bas |
| 58. TEMP_conv | 59. BOOT_PROcEdures | 60. SET_PRINTER |
| 61. XMAS_greet | 62. BLOCK_boot | 63. BLOCKW_obj |
| 64. graphicQl | 65. WINDemo | 66. LISTER_bas |
| 67. QED | 68. DIR_boot | 69. DIR_CODE |
| 70. ADDRbook | 71. AD1 | 72. DARTS_bas |
| 73. ROULETTE_bas | 74. MAZE_bas | |

Disk #2 LISTlibry2 21/720 sectors

- | | | |
|-------------------------|---------------------------|---------------------|
| 1. C1 | 2. RAMDISK_BOOT | 3. RAMDISK_CODE |
| 4. QCAD_bas | 5. Qcad_boot | 6. Pres_boot |
| 7. Pres_doc | 8. pres_bin | 9. fame_file |
| 10. trivia_file | 11. pres_file | 12. pres_pic |
| 13. CAL_boot | 14. CAL_bas | 15. SIDEcopy_bas |
| 16. LOTTERY | 17. LOAN | 18. LIFE |
| 19. EASEL_PRT | 20. loancal_doc | 21. STUNTMAN_bas |
| 22. SPRITE_BYT | 23. CAPSLOCK_EXEC | 24. STARPO_bas |
| 25. spcode_bin | 26. grap_bin | 27. STARLO_bas |
| 28. Starcruiser | 29. HighScore_StarCruiser | 30. StarCruiser_bin |
| 31. Tic_bas | 32. Lunar_bas | 33. UNIT_pricer |
| 34. RESISTOR_color_code | 35. PARALLEL_res | 36. ROUND_off |
| 37. PARALLEL_caps | 38. CURRENCY_conv | 39. decequiv_doc |
| 40. SIMPpd | 41. RESET_proc | 42. backup_bas |
| 43. refield_doc | 44. step7_prg | 45. step6_prg |
| 46. step5_prg | 47. step4_prg | 48. step3_prg |
| 49. step2_prg | 50. Refield_boot | 51. Eliza_bas |
| 52. Breakout_Boot | 53. breakout_exe | 54. HEXDEC_bas |
| 55. clocktv_exec | 56. Clock_boot | 57. Clock_MC |
| 58. clockANAL_exec | 59. clock_exec | 60. LISTLIB2_lab |
| 61. LISTLIB1_lab | | |

LIST

4 November
1990

Dear Fred,

Three prog listings for the Sinclair, that you may use in a future LISTING issue. All work on either the TS2000 or Spectrum. However, the "TV test" has a diagram within it that shows the position of TS2000 tuning condensers only. But the test patterns work for both instruments.

"Lettertile" and "TV test" are self explanatory when they run. "UDG Maker" has several functions not spelled out within it. They are: (arrows) move the blinking cursor around the UDG workboard. Blank (make white) all pixels in the UDG. <F> fill (make black) all pixels in the UDG. <E> erase all modifications and restore the original UDG. <I> invert the pixels from white to black and black to white. <M> mirror the UDG left-to-right. <S> store the modifications as new UDG.

Everything is in plain BASIC and runs from cassettes.

John

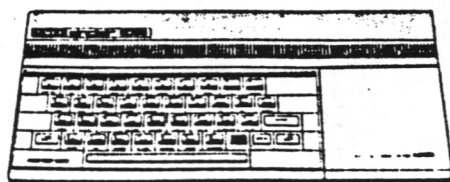
LISTing

Well Lang, Here are The Programs

Editor
JL

TS2068

Software



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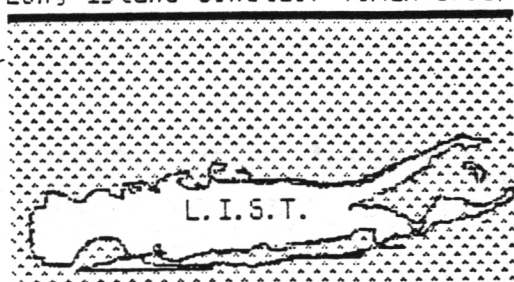
100 POKE 23658,8: LET RESET=700
0: GO TO 3000
1000 PRINT AT 8,11;" ";AT 9,11;
" ": FOR H=1 TO NC
1030 LET HR=8*(H=3 OR H=4): LET
HC=8*(H=2 OR H=4)
1040 FOR I=1 TO 8: FOR J=1 TO 8
1060 PRINT AT I+R+HR,J+C+HC;
1070 IF NOT B(I+HR,J+HC) THEN PR
INT PAPER 6; INK 9;" ": GO TO 10
90
1080 PRINT PAPER 9; INK 1;"■": P
LOT 87+J+HC,112-I-HR
1090 NEXT J: NEXT I: NEXT H
1100 PLOT 119,168: DRAW 129,0: D
RAW 0,-129: DRAW -129,0: DRAW 0,
129
1110 PLOT 184,168: DRAW 0,4: PLO
T 248,104: DRAW 4,0: PLOT 184,39
: DRAW 0,-4: PLOT 119,104: DRAW
-4,0
1120 RETURN
2000 FOR H=1 TO NC
2050 LET HR=8*(H>2): LET HC=8*(H
=2 OR H=4)
2060 FOR I=1 TO 8
2070 LET M=PEEK (S(H)+I-1)
2080 FOR J=8 TO 1 STEP -1
2090 LET B(I+HR,J+HC)=M-2*INT (M
/2): LET M=INT (M/2)
2110 NEXT J: NEXT I: NEXT H
2140 RETURN
3000 LET HR=8*(NC>2): LET HC=8*(
NC=2 OR NC=4)
3030 LET X=R+1: LET Y=C+1
3040 LET A=22528+32*X+Y: POKE A,
PEEK A+128
3050 PAUSE 0
3060 LET M$=INKEY$: POKE A,PEEK
A-128
3070 IF M$<"5" OR M$>"8" THEN GO
TO 3150
3080 LET Y=Y+(M$="8" AND (X<>8+H
R OR Y<>22+HC))- (M$="5" AND (X<>
1 OR Y<>C+1))
3090 LET X=X+(M$="6") - (M$="7")
3100 IF X>8+HR THEN LET X=1
3110 IF X<1 THEN LET X=8+HR
3120 IF Y>22+HC THEN LET Y=C+1:
LET X=X+1
3130 IF Y<15 THEN LET Y=22+HC: L
ET X=X-1
3140 GO TO 3040
3150 IF M$<>"0" AND M$<>"1" THEN
GO TO 3190
3160 PRINT AT X,Y;
3170 IF B(X-R,Y-C)=1 AND M$="0"
THEN LET B(X-R,Y-C)=0: PRINT PAP
ER 6; INK 0;" ": PLOT OVER 1;87+
Y-C,112-X+R: GO TO 3040
3180 IF B(X-R,Y-C)=0 AND M$="1"
THEN LET B(X-R,Y-C)=1: PRINT PAP
ER 7; INK 1;"■": PLOT 87+Y-C,112
-X+R: GO TO 3040
3190 IF M$<>"F" AND M$<>"B" THEN
GO TO 3240
3200 LET B=(M$="F")

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3210 GO SUB 4000: GO SUB 1000: G
O TO 3030
3240 IF M$<>"E" THEN GO TO 3260
3250 PRINT AT 19,0; INK 2;"NO CH
ANGE TO THIS CHR$ ": RETURN
3260 IF M$<>"S" THEN GO TO 3320
3270 PRINT AT 18,0;"STORE UDG <Y
OR NOT Y>?"
3280 PAUSE 0: LET E$=INKEY$
3300 IF E$="Y" THEN GO TO 5000
3310 FOR M=1 TO 4: PRINT AT 17+M
,0;L$: NEXT M: GO TO 3030
3320 IF M$<>"M" THEN GO TO 3440
3330 PRINT AT 18,13; FLASH 1; IN
K 3;"MIRROR": LET FC=INT (BC/2+.
5)
3340 FOR I=1 TO BR: FOR J=1 TO F
C
3370 LET M=B(I,J): LET B(I,J)=B(
I,BC-J+1): LET B(I,BC-J+1)=M
3390 NEXT J: NEXT I
3410 PRINT AT 18,0;L$
3420 GO SUB 1000: GO TO 3040
3440 IF M$<>"I" THEN GO TO 3500
3450 PRINT AT 18,13; FLASH 1; IN
K 3;"INVERSE"
3460 FOR I=1 TO BR: FOR J=1 TO B
C
3470 LET B(I,J)=NOT B(I,J)
3480 NEXT J: NEXT I
3490 PRINT AT 18,0;L$: GO SUB 10
00: GO TO 3040
3500 IF M$<>"U" THEN GO TO 3560
3504 PRINT AT 18,11; FLASH 1; IN
K 3;"UPSIDEDOWN": LET FR=INT (BR
/2+.5)
3510 FOR J=1 TO BC: FOR I=1 TO F
R
3520 LET M=B(I,J): LET B(I,J)=B(
BR-I+1,J): LET B(BR-I+1,J)=M
3530 NEXT I: NEXT J
3540 PRINT AT 18,0;L$
3550 GO SUB 1000: GO TO 3040
3560 IF M$<>"T" THEN GO TO 3040
3570 PRINT AT 18,0;"SAVE ALL UDG
'S (Y OR NOT Y)?: PAUSE 0: LET
E$=INKEY$
3572 IF E$<>"Y" THEN GO TO 3320
3580 PRINT AT 19,14; FLASH 1; IN
K 4;"SAVING": SAVE "UDG"CODE 653
68,168
3582 GO TO 3320
4000 FOR I=1 TO BR: FOR J=1 TO B
C
4030 LET B(I,J)=B
4040 NEXT J: NEXT I
4060 RETURN
5000 PRINT AT 19,13; FLASH 1; IN
K 3;"STORING"
5020 FOR H=1 TO NC
5030 LET HR=8*(H>2): LET HC=8*(H
=2 OR H=4)
5040 FOR I=1 TO 8
5050 LET T=0
5060 FOR J=8 TO 1 STEP -1
5070 IF B(I+HR,J+HC)=1 THEN LET
T=T+2*(8-J)
5080 NEXT J
5090 POKE (S(H)+I-1),T
5100 NEXT I: NEXT H
5120 PRINT AT 19,0;L$
5140 RETURN
6000 FOR H=1 TO NC
6040 LET HC=(H=2 OR H=4)*5+1: LE
T HR=(H>2)*9
6050 PRINT AT HR,HC; PAPER 1; IN
K 7;"[";CHR$ (CODE K$+H-1);"]"

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6060 FOR I=1 TO 8
6070 PRINT AT HR+I,HC;PEEK (S(H)
+I-1)
6080 NEXT I: NEXT H
6100 LET UG=CODE K$+79: PRINT AT
8,11; OVER 0;CHR$ UG;
6110 PRINT CHR$ (UG+1)
6120 PRINT AT 9,11; OVER 0;CHR$
(UG+2);CHR$ (UG+3)
6130 RETURN
7000 CLS : GO TO 8110
8000 BORDER 5: INK 0: PAPER 7: 0
VER 0: FLASH 0: CLS
8010 DIM C$(4): DIM L$(32): DIM
K$(1)
8012 PRINT "TAB 8;" * * UDGMAKER
* * "
-----
8020 PRINT "YOU GET FOUR CHARS A
T A TIME TO WORK ON, THE FOUR BE
ING IN A SE-RIES, LIKE <F,G,H,I>
, SET OUT IN A 2X2 SQUARE ARRAY."

8032 PRINT "INPUT THE FIRST CHA
R OF THE SET, LIKE <F> FOR THE SE
T <F,G,H,I>. THE HIGHEST CHAR YO
U CAN INPUT IS <R>, FOR THE SET
<R,S,T,U>."
8034 INPUT "FIRST CHAR: ";K$: IF
K$>"R" THEN LET K$="R"
8050 INK 2: PRINT "YOU ARE WORK
ING ON CHAR SERIES: " "TAB 11;" "I"
;
8052 FOR I=0 TO 3: LET C$(I+1)=C
HR$ (CODE K$+I)
8060 PRINT CHR$ (CODE K$+I);";";
: NEXT I: PRINT CHR$ 8;"I": INK
0
8100 LET NC=4: DIM S(NC)
8110 LET BR=16: LET BC=16
8120 DIM C(BC): DIM B(BR,BC)
8122 PAUSE 150: CLS
8140 FOR I=0 TO 3: PRINT INK 2;A
T 7,10;C$(1);TAB 13;C$(2) "TAB
10;C$(3);TAB 13;C$(4)
8150 LET S(I+1)=USR CHR$ (CODE K
$+I)
8160 NEXT I
8170 PRINT AT 18,12; FLASH 1; IN
K 1;"FETCHING"
8180 LET B=0: GO SUB 4000: GO SU
B 2000
8200 LET R=0: LET C=14
8210 GO SUB 1000
8220 PRINT AT 18,0;L$
8230 GO SUB 3000: GO SUB 6000
8250 PRINT AT 20,0;" COPY <Y OR
NOT Y>?"
8260 PAUSE 0: LET E$=INKEY$: IF
E$="Y" THEN COPY
8320 PRINT AT 20,0;L$;L$;AT 20,0
;" NEXT UDG <Y OR NOT Y>?"
8350 PAUSE 0: LET E$=INKEY$: IF
E$<>"Y" THEN CLS : PRINT AT 10,1
2;" * STOP *": STOP
8380 CLS : RUN
9000 CLEAR : SAVE "UDGMAKER" LIN
E 100

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2068 COLOR DEMO

by Edwin S. Salter
Milton, Florida

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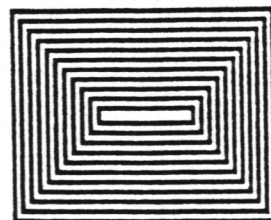
20 REM T/S 2068 COLOR DEMO
30 REM E. SALTER 1-20-85
50 RANDOMIZE 0
55 BORDER INT (RND*7)
60 FOR a=0 TO 150: INK INT (RN
D*7)
70 CIRCLE 127,87,a-67: PLOT a,
a: DRAW 255-a-a,0: DRAW 0,175-a-
a: DRAW -255+a+a,0: DRAW 0,-175+
a+a
80 NEXT a
90 PAUSE 50: GO TO 55
100 REM GOTO 9999 to list progr
am
9999 BORDER 7: PAPER 7: INK 0: C
LS : LIST

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For the TS 1000/ZX81

BOXES

By Stephen Brothers



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10 REM "BOXES"
20 REM
30 REM BY, STEPHEN BROTHERS
40 SLOW
50 LET G=0
60 LET J=43
70 LET H=63
80 FOR F=G TO H
90 PLOT F,J
100 PLOT F,G
110 NEXT F
120 FOR K=G TO J
130 PLOT H,K
140 PLOT G,K
150 NEXT K
160 LET J=J-2
170 IF J=21 THEN STOP
180 LET H=H-2
190 LET G=G+2
200 GOTO 80

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10 POKE 23658,0: BORDER 5: PAP
ER 5: INK 0: CLS
12 PRINT TAB 10; BRIGHT 1;" *
TUTEST * "; BRIGHT 0;"<1> HORI
ZONTAL COLOR BARS""<2> VERTICA
L COLOR BARS""<3> GRID OF LINE
S""<4> CHECKERBOARD""<5> COM
PUTER ADJUSTMENTS""<6> END OF
TEST"
14 INPUT "TEST NUMBER = ";R: I
F R<1 OR R>6 THEN GO TO 14
16 DIM A$(8,3): LET A$(1)="BLK
": LET A$(2)="BLU": LET A$(3)="R
ED": LET A$(4)="MAG": LET A$(5)=
"GRN": LET A$(6)="CYA": LET A$(7
)="YEL": LET A$(8)="WHI"
20 GO TO (R+100)
100 PAPER 7: CLS: FOR I=0 TO 6
: PRINT AT I+3,0; PAPER I;"
"; PR
INT INK 9; PAPER 8; AT I+3+1,14; A
$(I+1): NEXT I
104 GO TO 700
200 PAPER 7: CLS: FOR I=0 TO 2
1: PRINT PAPER 0;" "; PAPER 1
"; PAPER 2;" "; PAPER 3
"; PAPER 4;" "; PAPER 5
"; PAPER 6;" "; PAPER 7
"; NEXT I
202 FOR I=0 TO 7: PRINT PAPER 8
; INK 9; AT 10,I+4+1; A$(I+1): NEX
T I
210 GO TO 700
300 CLS: FOR I=0 TO 255 STEP 3
1.8: PLOT I,0: DRAW 0,175: NEXT
I
302 FOR I=0 TO 175 STEP 21.85:
PLOT 0,I: DRAW 255,0: NEXT I
304 GO TO 700
400 PAPER 7: CLS: LET I=0: LET
J=0: FOR K=1 TO 20: PRINT BRIGHT
1; AT I+1,J;" "; AT I+2,J;"
"; AT I+3,J;" "; AT I+4,J;"
": LET I=I+8: IF I>19 THEN LET
I=I-20: LET J=J+4
402 NEXT K
404 GO TO 700
500 PAPER 7: CLS: PLOT 255,150
: DRAW -150,0: DRAW 0,-120: DRAW
150,0: PLOT 200,150: DRAW 0,-40
: DRAW -95,0
502 CIRCLE 185,65,25: PRINT AT
13,21;"SPKR"; AT 4,16;"RF-MOD"
504 PRINT OVER 1; AT 6,15;"A->0"
; CHR$ 8;"-"; AT 14,14;"3->0"; CHR$
8;"-"; AT 9,17;"1->0"; CHR$ 8;"-";
; "0"; CHR$ 8;"-"; "2"
506 PRINT AT 0,0;"REMOVE TOP (K
EYBOARD) AND PROP IT UP. IT IS
ATTACHED BY A FLAT RIBBON CABLE;
DON'T PULL IT OFF."" "THERE AR
E 4""SCREWS FOR ""ADJUSTMENT:"
""<A> CRAWL"" AND RIPLE""<1
> TEAR AND ""GHOST""<2&3> CO
LOR"" AND PURITY""TWEAK THESE
""VERY GENTLY""WHILE INSPECTIN
G THE TV IMAGE. WHEN FINISHED C
AREFULLY REPLACE THR TOP."
508 INPUT "SCREEN$ COPY (Y OR N
)? ";R$: IF R$="Y" THEN COPY
510 GO TO 700
600 CLS: PRINT AT 10,12;"* STO
P *": STOP
700 INPUT "HIT <ENTER> WHEN DON
E ";R$: RUN
800 SAVE "TUTEST" LINE 0

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4 BORDER 6: PAPER 6: INK 0: C
LS: BEEP .3,10: BEEP .8,5
5 PRINT AT 8,0;"Welcome to LE
TTERTILE written and produced
by John Pazmino of Brooklyn NY s
pecially for the Long Island S
inclair Timex club (LIST) and th
e New York Timex- Sinclair Encl
ave (NYTSE)."
6 PRINT AT 20,0;"press any to
to start LETTERTILE": PAUSE 0
10 BORDER 5: PAPER 5: INK 0: C
LS: PRINT TAB 6;" * LETTER PUZZ
LE *""Move the letters with th
e arrow keys to put them in ABC
order. Your moves are counted a
nd you can try again for a lowe
r score."
12 DIM e$(32): DIM a$(5,5)
14 LET b$="ABCDEFGHIJKLMNOPQRSTUVWXYZ
TUUVWX": LET c$=b$: LET d$=""
16 FOR i=1 TO 25: LET m=INT (1
+RND*(26-i)): LET d$=d$+c$(m): L
ET c$=c$( TO m-1)+c$(m+1 TO ): N
EXT i
40 LET a$(1)=d$( TO 5): LET a$
(2)=d$(6 TO 10): LET a$(3)=d$(11
TO 15): LET a$(4)=d$(16 TO 20):
LET a$(5)=d$(21 TO )
42 FOR r=1 TO 5: FOR c=1 TO 5:
IF a$(r,c)=" " THEN GO TO 60
44 NEXT c: NEXT r
60 INK 4: PAPER 2: PRINT AT 8,
8;"
"; AT 20,8;"
";
62 FOR i=1 TO 12: PRINT AT 8+i
,8;"
"; AT 8+i,22;"
": NEXT i: PA
PER 7: INK 0
64 FOR i=1 TO 5: FOR J=1 TO 5:
PRINT PAPER 6; AT 8+2*i,9+2*J; a
$(i,J): NEXT J: NEXT i
66 LET m=0
68 PAUSE 0: LET m$=INKEY$
70 IF (c=1 AND m$="8") OR (c=5
AND m$="5") OR (r=1 AND m$="6")
OR (r=5 AND m$="7") THEN PRINT
AT 21,0: FLASH 1: PAPER 6: INK 2
;" * YOU CAN'T MOVE THAT WAY! *
": BEEP 1.5,1: PRINT AT 21,0:
PAPER 5; e$: GO TO 68
72 LET rr=r: LET cc=c: LET r=r
+(m$="7")-(m$="5"): LET c=c+(m$=
"5")-(m$="8")
74 LET a$(rr,cc)=a$(r,c): LET
a$(r,c)=" "
76 PRINT PAPER 6; AT 8+2*rr,9+2*
c;"
"; AT 8+2*rr,9+2*cc; a$(rr,cc)
78 LET m=m+1: PRINT AT 7,11;"M
OVE #";m
80 IF a$(1)+a$(2)+a$(3)+a$(4)+
a$(5)=b$ THEN GO TO 100
82 GO TO 68
100 PRINT AT 21,0; PAPER 5: INK
2: FLASH 1;" * YOU DID IT IN "
m;" MOVES! * ": FOR i=1 TO 100:
BEEP .1,i-50: NEXT i
102 INPUT "REPLAY SAME GAME (y/
n)? ";m$: IF m$="y" THEN PRINT P
APER 5; AT 21,0; e$; AT 7,0; e$: GO
TO 40
104 INPUT "ALL NEW GAME (y/n)?
";m$: IF m$="y" THEN RUN
106 PAPER 3: CLS: PRINT AT 10,
12;"* STOP *": STOP
200 CLEAR: SAVE "LETTERTILE" L
INE 0

```

QL To IBM RGB Monitor Connections

In the past few weeks I have had three requests for information on how to hook-up an IBM CGA or RGB Monitor to a QL. The following information will allow anyone with soldering experience to make an appropriate cable between the QL and an RGB monitor.

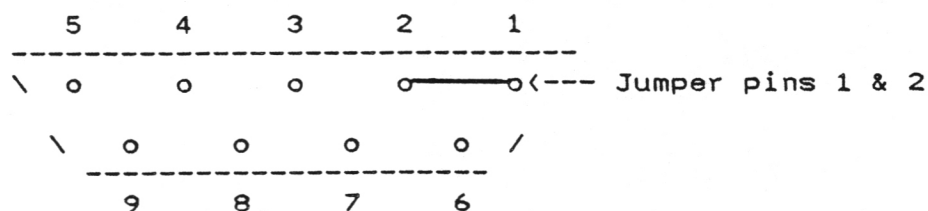
The only problem you may encounter is with the horizontal sync inversion from a negative going sync signal from the QL to a positive going horizontal signal required for most, if not all, American CGA/RGB monitors.

In the following diagrams, I use a 74LS00 TTL IC (Quad 2-input positive-nand gate), of which we will use pins 1 and 2, tied together to form an inverter input. The signal from the QL, which is negative, enters the input of the inverter, pins 1 & 2. The sync signal is now inverted within the IC and a positive horizontal sync signal is available at pin 3 which is connected to the horizontal pin on the monitor connector.

If you happen to have a 74LS04 Hex inverter IC, it also can be used - just use pin 1 as the horizontal input from the QL and pin 2 will be the inverted sync signal output connected to the monitor connector.

All parts for this project can be purchased at any Radio Shack store. In addition to purchasing the two connectors and IC, you will need a 9 pin 'D' connector hood, which if you are careful, can house the IC - just carefully clip all unused pins on the IC and bend pins 1, 2, 3, 7, & 14 in towards the center of the IC. Solder the wires with minimum solder and install the IC upside down (pins facing up) and the two piece connector hood will house it, allowing a clean appearing installation. You will also need a length of cable determined by your requirement. The cable need only be 7 conductors, or if you wish, use 7 - single lengths of multi-stranded wire to form your cable.

Male 9 Pin 'D' plug (solder pin side)



Connections to the male 9 pin 'D' connector

Pin #'s

- 1 Ground (common)
- 2 Ground (common)
- 3 Red (RGB signal)
- 4 Green (RGB signal)
- 5 Blue (RGB signal)
- 6 N/C (no connection)
- 7 N/C (no connection)
- 8 Horizontal Sync (negative signal - must be inverted)
- 9 Vertical Sync (Most monitors do not require Neg. sync)

Use pin #7, IC-1 as common
 Ground points for both cable connectors -
 (9 pin 'D' pin # 1 & 2)
 (8 pin 'Din pin # 2).

Horiz Sync out to 9 pin(-3 'D' connector, pin #8.
 Horiz Sync input from ->2 QL connector (pin #4)
 (Pins 1 & 2 are jumped together to form an inverted signal input).

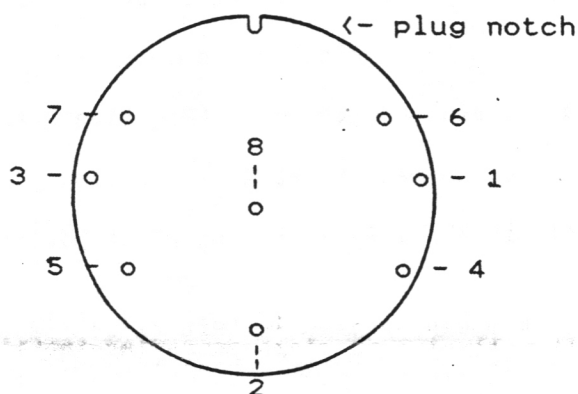
o	7	o	8
o	4	o	9
o	L	o	10
o	S	o	11
o	0	o	12
o	0	o	13
o		o	14

IC-1 will only have 5 pins used, #'s 1, 2, 3, 7, and 14.

14<- +5 volts from QL connector (Pin #1).

74LS00 TTL IC wired as an inverter - IC-1
 Bottom side up (pins up)

QL



LIST

8 Pin DIN connector(solder pin side)

Connections to the male Din 8 pin connector

Pin #'s

- 1 + 5 volts DC
- 2 Ground (common)
- 3 Composite Signal (not used for RGB)
- 4 Horizontal Sync (negative sync - must be inverted)
- 5 Vertical Sync (Most monitors do not require Neg. sync)
- 6 Green (RGB signal)
- 7 Red (RGB signal)
- 8 Blue (RGB signal)

Cable Connector hookup

Pin #1, 8 pin Din connector to pin #14, IC-1 (+ 5 Volts DC)

Pin #2, 8 pin 'Din connector to pin #7, IC-1 (Common Ground)

Pin #3, 8 pin Din connector NOT USED!

Pin #4, 8 pin Din connector to pin #'s 1 & 2, IC-1 (Horizontal sync input)

Pin #5, 8 pin Din connector to pin #9, 9 pin 'D' connector (Vertical Sync)
Pin #6, 8 pin Din connector to pin #4, 9 pin 'D' connector (Green RGB signal)
Pin #7, 8 pin Din connector to pin #3, 9 pin 'D' connector (Red RGB signal)
Pin #8, 8 pin Din connector to pin #5, 9 pin 'D' connector (Blue RGB signal)

Pin #1 and #2, 9 pin 'D' connector to pin #7, IC-1 (Common Ground)
Pin #3, 9 pin 'D' connector to pin #7, 8 pin Din connector (Red RGB signal)
Pin #4, 9 pin 'D' connector to pin #6, 8 pin Din connector (Green RGB signal)
Pin #5, 9 pin 'D' connector to pin #8, 8 pin Din connector (Blue RGB signal)
Pin #6 & #7, 9 pin 'D' connector NO CONNECTION
Pin #8, 9 pin 'D' connector to pin #3, IC-1 (Positive Horizontal sync output)
Pin #9, 9 pin 'D' connector to pin #5, 8 pin Din connector if required (Vertical sync)
Pin #'s 1 & 2, IC-1 to pin #4, 9 pin 'D' connector (Negative Horizontal sync)
Pin #3, IC-1, to pin #8, pin 'D' connector (Positive Horizontal sync out)
Pin #7, IC-1 (two wires), to pin #'s 1 & 2, 9 pin 'D' connector and to pin #2, 8 pin Din connector
Pin #14, IC-1, to pin #1, 8 pin Din connector (Pin #1 is labeled PAL in the QL manual, however, the US QL's have a 5 volt DC connection at this pin).

List of parts: Radio Shack part numbers indicated

274-026	8 pin male DIN plug	\$1.79
276-1537	9 pin male 'D' plug	\$0.99
276-1539	9 pos 'D' Hood	\$0.79
276-1801	7400 Quad 2-input NAND gate	\$0.89
276-1802	7404 Hex inverter	\$0.99 *
278-775	9 conductor, double shielded cable	\$0.59 per foot

* Use the 7404 Hex inverter as an alternate IC.

Additional Information:

An RGB monitor will display 8 primary colors; black, red, yellow, cyan, green, blue, magenta and white. If you purchase a CGA monitor, yellow will appear brown and white will be tinted blue or dirty looking. This is set-up in the G2's (grids of the picture tube) to produce these differences in color because; CGA monitors have one additional line called Intensity. CGA will provide 16 colors if the intensity line is used - IBM only! Yellow will be yellow when intensified and white will be white. You may also find that when you power-up the QL, the tweed memory check display and the F1 - F2 display will roll until you press either function key; then it will stabilize. Try not using the vertical sync line, it may eliminate this problem.

NOTE: If you require any assistance, contact me through LIST.

Bob Gilder.....

GUIDE TO TROUBLE SHOOTING

Not too many years ago, when computers were made of wired keyboards and any number of discrete boards, fault-finding was a little easier for the layman. If a faulty board could be found it could be removed and replaced, a relatively inexpensive job.

The QL has a membrain keyboard, internally, and only one board. The memory chips are soldered in and the microdrive cartridge mechanism is part of the case, and the microdrive recording heads are not adjustable.

Those are, of course, some of the features which permit such a powerful computer to be sold at such low cost, so we can hardly complain.

This implies that fault finding and repair work by the knowledgeable owner is a little more difficult. One big handicap is that no circuit diagram is supplied with the QL as standard. It is suggested that unless you have a good

deal of experience of repair work, a QL service manual is essential. Custom chips; the ZX 8301 and ZX 8302 can be obtained from Sharps if needed.

If you do not feel confident about attempting a repair yourself, I believe that Dan Elliot still repairs Timex/Sinclair computers. If you could be specific about a fault, say, a microdrive is not working properly. Ask yourself, in what way(s) is it not working? If the QL continuously locks up, is there a good reason for the lock-up? By looking carefully at the options you may save yourself a repair bill. Let us consider a number of common fault areas in the QL.

The following table lists faults against possible problems. The list of numbers relates to the actions you can take to cure a fault or check the area where it lies. The related actions are listed below this table.

FAULT	CAUSE	CHECK
Green/white screen on power-up or re-set.	Faulty expansion port or RAM.	1,2
Large Blocks/stripes of color and possible speaker noise.	Chip or bad chip pin contact.	3
No re-set or spurious re-sets occurring.	Faulty re-set switch.	4,5
QL locks-up after specified time.	Overheating/ bad contacts/ noisy A-C or marginal RAM.	3,6,7,8
QL locks-up at random.	Noisy A-C/bad contacts or marginal RAM.	3,7,8
Microdrives fail to read/write properly on a cartridge in use in one drive only.	Noisy A-C or over-heating.	6,7
Microdrive fails to read cartridges recorded by another drive.	Bad alignment.	9

FAULT	CAUSE	CHECK
Microdrive fails to read/write any cartridge.	Over-heating/ bad pin contacts or faulty drive.	3,6,
Certain keys; not usually the complete set; fails to operate.	Faulty keyboard membrane.	10

1. Remove any expansion module and check operation. If the fault is cured the expansion module is faulty or requires too much power from the QL.
2. External RAM is faulty. Treat as for number 1 above.
3. Bad chip contacts can be checked and cleaned only by removing all possible chips - not the ones soldered in - from the main board. Do not perform this unless you are confident and obey all normal rules regarding static-sensitive devices.
4. Re-set switch has been damaged by upward pressure while using it. Check state of switch by removing QL lid.
5. Power plug connections are weak through too much use. Replace or hard wire power lead.
6. Over-heating; keep away from direct sunlight and other heat sources. Do not cover vent holes. Remove any expansion boards to see if they are drawing too much power from the QL. Place small silent fan behind right-hand-side of machine or, if confident - and as a last resort - remove the voltage regulator and heatsink to the outside of case.
7. Noisy A-C power line. This can be rectified by using suppressor module.
8. If QL contains marginal or 'lossy' RAM, a full RAM test will be needed to check operation of RAM.
9. If microdrive heads are mis-aligned, there is little hope of cure except by a complete replacement.
10. Replace faulty keyboard membrane.

QL CORNER

Archive: Watch the saves

Archive file saving options, although similar, work in different ways. If you produce a collection of PROCedures and input "SAVE drive filename" (save flp2_procedures), the procedures will be saved as a text file which will be appended with "_prg". Loading this type of file back into Archive is similar to loading a SuperBASIC program; it is slow.

Saving the procedures using the "SAVE OBJECT drive filename" will save the file in a tokenized form used internally by Archive. The process is roughly analogous to compiling a Basic program. This type of file is appended with "_pro", and takes up more media space, but can still be modified after re-loading it into Archive.

If a file is saved with the command "SAVE PROTECT drive filename", it is also appended with "_pro", but cannot be listed or modified in any way.

This type of file should be used only:

- a) if you have spent a considerable amount of time developing meaningful Archive routines which you want to protect; and
- b) only if you are very sure that you will not want to modify them at some future date; and
- c) only if you have also saved them as "_prg" files as well.

With the possible exception of accessibility and loading time for a large PROCedure file, the end-user is unlikely to notice any difference between either of the three SAVE variations. 1/20/91